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# The Role of Music in Exploring the Aesthetic Experience of Dance Choreographies

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## Abstract

This paper aims to analyze and reflect upon different approaches to the role of music when exploring the aesthetic experience of dance choreography. Because of the impact music has on its listener when exploring the aesthetic experience of dance, music may be a challenging aspect to deal with. It has been noticed that music may represent a confounding factor because it is not completely clear how dance and music are combined in the cognitive system of the observer so that they produce a unique aesthetic experience. Various authors opt for different research designs to control for music as a possible confounding variable when exploring the aesthetic experience of dance choreographies. Three different types of studies investigate the aesthetic experience of dance performances. The first type excludes music, the second does not separate music and dance, and the third one uses ‘experimental choreography’, i.e., a specially designed form of dance, which, in experimental conditions, enables the study of perception and aesthetic experience. Besides the implication arising from our analyses, the importance of exploring dance inseparably from music is outlined in the conclusion.

## Introduction

The bond between music and dance is almost unbreakable. According to Irena Krešić (1997), music and rhythm pose both a challenge and an inspiration when creating as well as when performing a certain dance piece. Moreover, their joint effect and mutual relationship significantly influence the audience’s overall aesthetic experience. Music and dance should accompany each other to achieve mutual impact and unity for the dancers and the audience. The most common way to perform a certain choreography is with music (Carrol & Moore, 2012; Christensen & Calvo-Merino,

2013), although there are cases, albeit very rare, when dance is performed in silence (Hagendoorn, 2011). Hence, when it comes to the role of music when exploring the aesthetic experience of dance choreographies, academic studies also adopt different approaches to this matter.

## Aim

The aim is to analyze and reflect on the findings of different academic studies which explore the aesthetic experience of dance choreographies, approaching the role of music in different ways.

## Main Contribution

When investigating the aesthetic experience of dance choreographies, one of the most important questions is how to approach the role of music. Previous studies have shown that music and rhythm have an impact on the listener and that they may move people to dance. It has been noticed that across cultures, people spontaneously synchronize their body movements with music with a strong, regular rhythm that is neither too slow nor too fast (Hagendoorn, 2011). Some studies indicate that listening to music does not include only the brain areas responsible for processing auditory information but also those responsible for processing sensory-motor information. Hence, it is assumed that certain body sensations are the result of the influence of music and rhythm (Cervellin & Lippi, 2011; Janata & Grafton, 2003; Reinhardt, 1999; Thaut et al., 2014; Thaut et al., 2015; Tormodsdatter Færøvik, 2017). For example, empirical evidence shows that “auditory stimulation pre-

pares the motor system to be ready for movement because the rhythm provides time for the brain to plan ahead and be ready” (Thaut et al., 2015, p. 2).

Furthermore, music has been shown to stimulate the pumping of blood to the muscles of the legs and arms, which may be a potential reason why people tap their feet or fingers to the beat (Thaut et al., 2014; Thaut et al., 2015). In addition, the rhythm can cause changes in the heart rate and the work of the respiratory system so that a person very often synchronizes breathing with the music (Cervellin & Lippi, 2011; Reinhardt, 1999; Tormodsatter Færøvik, 2017). According to Janet and Grafton (2003), synchronizing an individual movement with a perceived rhythm in music represents a relatively simple level of combining music and movement, while more complex levels include dancing, singing, or playing an instrument.

The results of the study from the field of neuroscience done by Olivia Foster Vander Elst et al. (2021) suggest that spontaneous rhythmic movement to music stems from a person’s need to move with it because such activity brings people pleasure and enjoyment. Movements stimulated by rhythm include those as small as a wiggle or moving different parts of the body, nodding the head, or finger tapping to the rhythm of the music, but also those highly articulated movements shaped into dance. Regardless of which movements a person synchronizes with the rhythm of music, various authors emphasize that the experience of pleasure and positive feelings are the neurobiological drivers of this activity (Foster Vander Elst et al., 2021; Janata et al., 2012; Witek et al., 2015).

Because of its impact on the listener, when exploring the aesthetic experience of dance, music may be a challenging aspect to deal with. Although the performance of choreography is closely related to music, since it gets its final aesthetic appearance only when performed with music (Carrol & Moore, 2012), in the exploration of the aesthetic experience of dance, it has been noticed that music may represent a confounding factor. It is not completely clear how

dance and music are combined in the cognitive system of the observer so that they produce a unique aesthetic experience (Christensen & Calvo-Merino, 2013). Performing a choreography with music is a complex visual, auditory, and motor stimulus for observers. Due to this, and to control for music as a possible confounding variable when exploring the aesthetic experience of dance choreographies, various authors opt for different research designs.

Namely, three different types of studies investigate the aesthetic experience of dance performances (Vukadinović, 2019). The first type excludes music (Stevens et al., 2009; Vukadinović, 2013, 2019). The second type does not separate music and dance (Christensen & Calvo-Merino, 2013; Glass, 2005; Stevens & McKechnie, 2005; Vitkay-Kuczera & Vukadinović, 2017; Vukadinović & Marković, 2012, 2017). Some studies compare communication in dance and its aesthetic experience with and without music (Reason et al., 2020). The third one uses ‘experimental choreography’, which represents a specially designed form of dance that enables the study of perception and aesthetic experience in experimental conditions (Jola, 2010). When studying the aesthetic experience of dance without music, i.e., assessing the aesthetic properties of the movements composed with the music but performed without it, the results inform us only about the dance with no confusion about where the aesthetic experience stems from. Even though this kind of research design may provide the most reliable information, its setting is unnatural.

Performed without music, a dance piece composed with music loses its aesthetic power both for the dancers and the audience. It might be noticed that for the sake of the exactness of the research, art seems to be impoverished. On the other hand, in the studies that do not separate dance from music when exploring the aesthetic experience of dance choreographies, the problem of objectivity and the validity of the findings arises. In other words, it is hard to claim whether the aesthetic experience of the entire piece is based on music, dance, or com-

bination. Because it is hard to separate the effect of music from the effect of dance, music is treated as a confounding variable. In this case, it seems that research remains deprived of some answers for the benefit of the art. In addition to the role of music, the main problem when exploring the aesthetic experience of dance is that science and art have opposing methodologies (Jola, 2010). To cross the border between the field of dance as a form of art and cognitive neuroscience, Jola introduces “experimental choreography, which would represent the way in which dance and cognitive science can be combined to build a coherent research purpose” (Jola, 2010, p. 204). According to her, ‘experimental choreography’ refers to a particular type of work in dance. The work is usually “abstract, non-narrative and formal in nature and it arises by a practice constituent of try-outs, playing, improvising, exploring and trial-and-error approaches” (Jola, 2010, p. 204). This approach to exploring questions related to dance represents an inspiring methodological solution, especially because ‘experimental choreography’ represents a creation that follows the scientific and research principles of originality, analysis, and understanding (Jola, 2010).

Moreover, a good methodological solution to control the effect of music is to conduct a research study of dance in settings with and without music. Such investigation may provide a better understanding of the role of music in the aesthetic experience of dance (Reason et al., 2020).

Although science imposes rigorous demands on the researcher who explores different art forms such as dance, music, etc., it is important that both science and art progress and be enriched with new knowledge in such a way that the exactness of a science is not impaired, and that art does not lose its beauty and aesthetic impact.

## Conclusion

Based on our analyses, it can be concluded that it is crucial to explore dance inseparably from music if we are to understand the aesthetic experience of dance. Thus, the main implication of this paper is that modern practices in the exploration and understanding of the role of music in the aesthetic experience of dance should insist on observing dance in its natural context, i.e., with music, on stage and in front of the audience, to preserve its originality and authenticity of the presentation, and thus provide natural conditions for the appearance of an aesthetic experience of both the performer and the audience.

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